



Smallholder farmers' comparative assessment of traditional and improved storage options for maize in Tanzania

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Abstract

In recent times, the awareness of smallholder maize farmers about food loss prevention options has increased the potential adoption of new improved storage technologies. However, farmers need some decision criteria to adopt a feasible and economically viable option without undergoing many years of expensive experimentation or try-and-error. We present the results of farmers' own assessments of their postharvest practices, comparative assessment of some storage technologies and financial decision options inform adoption decisions. Food losses were measured after 8 months storage and price data for maize were collected from the markets using price data sheets. The Gross Margin (GM) analysis and Benefit-Cost ratio (B/C ratio) were used to determine the financial benefits of the use of the storage options. The price of major crops differed significantly during the period of harvest and off-season ($P < 0.005$). Pests and diseases were reported by 52% of the farmers as the major factors responsible for storage loss. Storage of maize using modern methods is beneficial in preventing storage losses thereby increasing food availability but there may be a negative financial benefit especially when market prices are low. The lesson learned was that development practitioners should carefully evaluate the potential financial, food security and other benefits of a new storage technology prior introduction to farmers.

Key words: adoption option, benefit, food loss, pests, prices, storage

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